

Application Number 10/608,252
Responsive to Office Action mailed August 15, 2005

REMARKS

This amendment is responsive to the Office Action dated August 15, 2005. Applicants have amended the Abstract of the Disclosure to make the Abstract of the Disclosure into a single paragraph. Applicants have amended claims 1, 2, 4, 6-8, 10, 11, 16 and 18. Claims 1-24 are pending.

Applicants have amended claims 1, 2, 4, 6-8, 10, 11 and 18 to replace "disc access commands" with "data access commands." Applicants' Description discloses that data is the subject being accessed in, for example, page 1, lines 14-15: "The disc drive unit includes a read/write head for accessing data to be stored or read from each disc storage surface" (emphasis added).

Claim Rejection Under 35 U.S.C. § 112

In the Office Action, the Examiner rejected claims 16 and 17 under 35 U.S.C. § 112. Applicants have amended claim 16 to address the Examiner's concern.

Claim Rejections Under 35 U.S.C. § 102

In the Office Action, the Examiner rejected claims 1, 3, 5, 7, 9, 10, 11 and 18 under 35 U.S.C. § 102(b) as being anticipated by U.S. Pat. No. 6,321,233 to Larson (hereinafter Larson). Applicants respectfully traverse the rejections. Larson fails to disclose each and every feature of the claimed invention, as required by 35 U.S.C. § 102(b), and provides no teaching that would have suggested the desirability of modification to include such features.

Independent claim 1 recites a method comprising (a) assigning a unique tag for each of several data access commands, and (b) designating which of a plurality of queue execution modes to use for a selected one of the data access commands based on the selected command's tag. Larson fails to disclose designating which of a plurality of queue execution modes to use for a selected one of the data access commands based on the selected command's tag, as recited in claim 1.

The Examiner incorrectly interpreted "designating which of a plurality of queue execution modes to use" from claim 1. According to the Examiner, this language can refer to designating a selected command "to a specific (but of a plurality) queue execution mode or

Application Number 10/608,252
Responsive to Office Action mailed August 15, 2005

behavioral (particular type of) queue" (emphasis added). In other words, the Examiner incorrectly interpreted claim 1 more broadly than claim 1 was written, to include an alternative element that is not recited in claim 1. The Examiner has confused the queue execution mode with the queue.

Claim 1 does not recite assigning a selected command to a particular queue, but rather claim 1 recites "designating which of a plurality of queue execution modes to use." As discussed on page 7, lines 6-9 of the specification,

A "queue execution mode" specifies how but not where the queued commands are to be executed. For example, a queue execution mode can be a simple binary queue number, but not if the number merely refers to a less-busy one of several queues that are otherwise identical in how they process commands.

(emphasis added). Therefore, the Examiner is in error interpreting claim 1 to encompass designating which queue to use, which pertains to where the command is sent, rather than "designating which of a plurality of queue execution modes to use," which pertains to how the command is to be executed.

Larson does not describe or otherwise concern itself with associating a selected command with one or more queue modes. Furthermore, the Examiner cited column 9, lines 64-67 through column 10, lines 1-5 of Larson, but the cited portion has nothing to do with queue modes ("how") for a command. For that matter, the cited portion has nothing to do with queue selection ("where") for a command, either. The cited portion pertains to storing the Larson age tags, not the commands, in a queue. In addition, the designation of whether a command is assigned to Larson's read queue or write queue is not based upon the Larson age tag. See Larson col. 9, lines 51-63. Larson does not disclose or suggest designating which of a plurality of queue execution modes to use for a selected data access command, nor does Larson disclose or suggest making such a designation based on the selected command's tag, as recited in claim 1.

Claims 3, 5, 7, 9, 10 and 11 depend directly or indirectly upon independent claim 1. Because independent claim 1 is not anticipated by Larson, neither are claims 3, 5, 7, 9, 10 and 11. The Examiner's incorrect analysis of claim 1 is often repeated in connection with the dependent claims, and Applicants' arguments are applicable to rejections of those claims.

Claim 5, which depends upon independent claim 1, recites (among other elements) associating one of the queue execution modes with a first queue and associating another of the

Application Number 10/608,252
Responsive to Office Action mailed August 15, 2005

queue execution modes with a second queue. Claim 5 clearly shows that "queue mode" and "queue" are distinct elements. Claim 5 provides that the queue ("where") can be associated with the queue mode ("how"). By the doctrine of claim differentiation, however, claim 1 establishes that designating a queue execution mode ("how") is not the same as designating a queue ("where").

Claim 7, which depends upon independent claim 1, recites redefining a queue execution mode that is associated with at least one tag while the at least one tag is not assigned to any data access command. This recited element is not disclosed by the Examiner's cited language from Larson. The cited portion (see Larson col. 2, lines 58-64) refers to modification of age tags, not redefining any queue execution mode. Here, the Examiner has confused the queue execution mode with the Larson age tag.

Claim 18 recites an electromechanical device comprising one or more data storage disc(s), a memory configured to hold several pending commands for accessing the disc(s), each of the commands having a unique tag, and a controller configured to determine which of a plurality of queue execution modes to use for a selected one of the pending data access commands based on the selected command's tag. Larson fails to teach or suggest a controller configured to determine which of a plurality of queue execution modes to use for a selected one of the pending data access commands based on the selected command's tag, as recited in claim 18. As discussed above, Larson does not disclose or suggest designating which of a plurality of queue execution modes to use for a selected data access command, nor does Larson disclose or suggest making such a designation based on the selected command's tag, as recited in claim 18.

For at least these reasons, Larson fails to disclose each and every limitation set forth in claims 1, 3, 5, 7, 9, 10, 11 and 18, and therefore the Examiner has failed to establish a prima facie case for anticipation of Applicants' claims 1, 3, 5, 7, 9, 10, 11 and 18 under 35 U.S.C. § 102(b). Withdrawal of these rejections is requested.

Claim Rejections Under 35 U.S.C. § 103

Before discussing individual claim rejections, Applicants wish to remind the Examiner that the Examiner bears the burden of establishing a prima facie case of obviousness. In doing so, the Examiner must determine whether the prior art provides a "teaching or suggestion to one

Application Number 10/608,252
Responsive to Office Action mailed August 15, 2005

of ordinary skill in the art to make the changes that would produce" the claimed invention. A prima facie case of obviousness is established only when this burden is met. Applicants further wish to remind the Examiner that motivation to combine references must be found in the prior art, and that it is impermissible hindsight for the Examiner to use the motivation stated in Applicant's own disclosure as a blueprint to reconstruct the claimed invention from the prior art.

In an effort to support rejection of Applicants' claims, the Examiner has selected references that do not bear upon the recited elements of the claimed invention. Not only do these references not have anything to do with elements recited in Applicants' claims, the references often bear no resemblance to each other in terms of context or purpose. Mere use of similar terminology (such as the word "tag") in two references does not mean that the references are talking about the same item or the same process or the same concept. One skilled in the art would not look to combine concepts from disparate references when the references have no commonality of context or purpose.

In addition, even if the concepts of the references were to be combined, the claimed invention would not be the result.

In the Office Action, the Examiner rejected: claim 2 under 35 U.S.C. § 103(a) as being unpatentable over Larson in view of Espeseth (U.S. Pat. No. 6,877,070, hereinafter Espeseth); claim 4 under 35 U.S.C. § 103(a) as being unpatentable over Larson in view of Day (U.S. Pat. App. 2004/0019734, hereinafter Day); claim 6 under 35 U.S.C. § 103(a) as being unpatentable over Larson in view of Chidambaran (U.S. Pat. App. 2001/0011296, hereinafter Chidambaran); claim 8 under 35 U.S.C. § 103(a) as being unpatentable over Larson in view of Haines (U.S. Pat. No. 6,366,980, hereinafter Haines); claim 12 under 35 U.S.C. § 103(a) as being unpatentable over Larson in view of Johnson (U.S. Pat. App. 2001/0008009, hereinafter Johnson); claim 13 under 35 U.S.C. § 103(a) as being unpatentable over Larson in view of Shaw (U.S. Pat. No. 6,618,825, hereinafter Shaw); claim 19 under 35 U.S.C. § 103(a) as being unpatentable over Larson in view of Snyder, II (U.S. Pat. No. 6,189,083, hereinafter Snyder); claim 20 under 35 U.S.C. § 103(a) as being unpatentable over Larson in view of Ng (U.S. Pat. No. 5,341,351, hereinafter Ng); claim 21 under 35 U.S.C. § 103(a) as being unpatentable over Larson in view of Hoang et al. (U.S. Pat. No. 6,026,469, hereinafter Hoang); claim 22 (and apparently also claim 23) under 35 U.S.C. § 103(a) as being unpatentable over Larson in view of Zuravleff et al. (U.S.

Application Number 10/608,252
Responsive to Office Action mailed August 15, 2005

Pat. No. 5,737,547, hereinafter Zuravleff); and claim 24 under 35 U.S.C. § 103(a) as being unpatentable over Larson in view of Morrow (U.S. Pat. App. 2003/0046472, hereinafter Morrow).

Applicant respectfully traverses the rejections. The applied references fail to disclose or suggest the inventions defined by Applicants' claims, and provide no teaching that would have suggested the desirability of modification to arrive at the claimed invention.

In regard to each claim rejected under section 103, the Examiner relies upon Larson. The Examiner's reliance upon Larson is misplaced. For the reasons given above, Larson cannot be a basis for rejection of the independent claims or any claims dependent thereon. As previously discussed above, Larson fails to disclose or suggest elements the independent claims and therefore Larson fails to disclose or suggest elements of the dependent claims as well.

None of the cited references discloses or suggests the elements that are absent from Larson. Further, many of the cited portions of the references do not disclose elements that are recited in the respective claims against which the references have been cited. For example, Chidambaran is not directed to "pending data access commands" and is not directed to aborting a pending data access command based on a newly-received command, as recited in claim 6, and Haines (col. 7, lines 17-20) does not pertain to "determining which of a plurality of error correction modes to use for the selected data access command," as recited in claim 8.

Moreover, the Examiner's application of the references to the claims is improper. In connection with the rejection of claim 2, for example, the Examiner refers to Larson column 6, lines 24-26, saying that "Larson teaches 'having the at least two data access commands in a queue or associated with a single queue execution mode.'" Apart from the fact that the Examiner grossly misstates the elements of claim 2, the cited portion Larson does nothing of the sort. The referenced Larson language has nothing to do with queue execution modes.

In connection with the rejection of claim 23, the Examiner provided virtually no discussion of the basis for the rejection, and clearly failed to make a prima facie case for rejection. In any event, the rejection is without merit. Claim 23 depends upon claim 22, and the rejection of claim 22 is without merit for the reasons given above.

Application Number 10/608,252
Responsive to Office Action mailed August 15, 2005

Allowable Subject Matter

In the Office Action, the Examiner indicated that claims 14 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 14 depends upon independent claim 1, and claim 15 depends upon claim 14. For the reasons given above, the rejection of independent claim 1 is not well founded, so Applicants decline the Examiner's invitation to amend claims 14 or 15 at this time. Applicants also decline the Examiner's invitation to amend the Title in or the Abstract to conform to claim 14.

In the Office Action, the Examiner indicated that claims 16 and 17 may be allowable if rewritten to overcome the rejections under 35 U.S.C. § 112, second paragraph. In this Amendment, Applicants have amended claim 16, but have not amended claim 16 according to the Examiner's interpretation. Nevertheless, neither Larson nor the other cited references disclose or suggest all elements of claim 16, as amended. Consequently, claims 16 and 17 are in condition for allowance.

CONCLUSION


All claims in this application are in condition for allowance. Applicant respectfully requests reconsideration and prompt allowance of all pending claims. Please charge any additional fees or credit any overpayment to deposit account number 50-1778. The Examiner is invited to telephone the below-signed attorney to discuss this application.

Date:

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